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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/471,890	06/07/1995	DONALD R. HUFFMAN	7913ZY	9010

7590 11/29/2001

LEOPOLD PRESSER  
SCULLY SCOTT MURPHY & PRESSER  
400 GARDEN CITY PLAZA  
GARDEN CITY, NY 11530

EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 11/29/2001

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

471895

Applicant(s)

Huffman

Examiner

Derbickson

Group Art Unit

1754

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 12/1/96
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 89-103 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 89-103 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 94 and 95 are rejected under 35 U.S.C. 102(b) as being anticipated by Chatterjee. Chatterjee teaches carbon black as a carbon allotrope in column 2 lines 50-55.

Claims 89-103 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 45-77, 79-180 of copending Application No. 07/580246. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both claim macroscopic amounts of C60 and C70 fullerenes. No difference is seen between the two applications in the amounts and kind of carbon made; it is not seen how different carbons would result therefrom. The similarity of the two sets of claims is self evident.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 89, 93, 97 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A) Claims 89 and 93 recite 'macroscopic' amounts of the material, but the original specification does not support this. The discussion on pgs. 5-8 of the prior office action are referred-to and incorporated.

B) Claim 97 recites 'caged', but no support is indicated for this limitation. Page 11 does not in fact discuss a caged carbon- it mentions a carbon cage, something quite different.

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Claims 97, 99 and 100 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) In claim 97, 'caged' is unclear in that it implies that the fullerene claimed is inside of a cage. It is not clear what is inside what.

B) In claim 100, it is not clear how a product can comprise a process step. Perhaps 'wherein the process further comprises' is meant.

C) In claim 99, 'substantially comprising' is unclear. At very least, those two words should be in the other order. Perhaps 'consisting essentially of' or 'being substantially' is meant.

Claims 88, 90-92 and 94-103 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kroto/Nature November 14, 1985, with the Curl/Scientific American cited to show a state of fact.

Applicant is referred to the rejection in the prior office action, incorporated herein by reference.

Claims 88-103 are rejected under 35 U.S.C. 102(b) as being anticipated by the Kratschmer article "Spectroscopy ... Cluster Molecules".

Applicant is referred to the rejection in the prior office action, incorporated herein by reference.

No difference is seen in the carbon formed, nor in the amounts thereof.

Claims 88-103 are rejected under 35 U.S.C. 102(a) as being anticipated by the article by Kratschmer, Huffman and Fostiropoulos in Chem. Phys. Lett. July 1990.

Applicant is referred to the rejection in the prior office action, incorporated herein by reference.

No difference is seen in the carbon, nor in the amount thereof.

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Applicant's arguments filed 12/6/96 have been fully considered but they are not persuasive.

The references cited which were present in the parent application have been considered. Applicant should point out what new references, if any, were added not found therein. The argument that 'macroscopic' is supported is not persuasive in view of the Board Decision in the parent application, discussing this issue at length. The Board concluded that 'macroscopic' is a term per se with a definition but the applicant did not disclose macroscopic amounts of carbon. Applicant argues that the present application is directed to fullerenes, but this does not explain why claims such as 94 do not recite them per se and in fact encompass carbon black. Consistent with their arguments, the claims should be narrowed. Given that the claims are deemed anticipated by and indistinct from references by the same people making fullerenes, it is not clear why applicants interpret the rejection of 'macroscopic' to be a holding by the Office that they did not make any fullerenes at all.

The discussion of color on pg. 12 of the response is noted. However, solutions containing no solids can still be colored, thus a color is not indicative of a solid. Moreover, the color of a material can change when other things are added; for example, fullerenes extracted with certain solvents are of differing colors. On pg. 13, the argument that the lack of a TEM spectrum proves macroscopic amounts of product is logically flawed and is dismissed. Concerning the Smythe case, the disclosure therein had a specific recitation followed by a broad functional disclosure. Thus, it was held to support a broad concept. No analogous situation exists in this case, for reasons of record in the parent application. Moreover, even though something is obvious from the specification, it is not necessarily supported thereby. Thus, the arguments and Declarations are not persuasive. The rejection under '101 is withdrawn, consistent with the findings and proceedings of the parent application. Arguments thereto are moot. However, on pg. 25, it is said '... it is clear that the natural existence of C60 and C70 has not been established.'

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The Office strongly traverses this argument, and in the 5 years since it was made it has been shown that it is not true. Even Kroto paragraph 3 implies otherwise "... permitted the researchers to **confirm** the *existence* and structure of these materials ...". (emphasis added). See also Kroto paragraph 4. Indeed, Kroto's expertise comes from the acknowledgement that he 'saw' fullerenes in space dust. Since space dust is not man-made, it is naturally occurring. Indeed, the concluding statement on pg. 25 appears to be an excellent refutation of applicants own earlier argument.

The Kroto reference is still applied against the claims which do not recite macroscopic. It appears to be applicant's position that all claims inherently are limited to macroscopic amounts and thus the reference is moot. The Office does not read this limitation into the claims, however.

Kratschmer I and II are deemed to make the claimed carbon material- the claims are not to a process- especially since it essentially the same experimental work as disclosed in the present specification. They are deemed to make and isolate fullerenes in the article to the same extent they do so in the application.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.



Stuart Hendrickson  
Primary examiner Art Unit 1754